

St. Bartholomew's Hospital



"Æquam memento rebus in arduis
Servare mentem."

—Horace. Book ii, Ode iii.

JOURNAL.

VOL. XLIV.—No. 1.]

OCTOBER 1ST, 1936.

PRICE NINEPENCE.

CALENDAR.

Fri., Oct. 2.—Dr. Gow and Mr. Girling Ball on duty.
Sat., „ 3.—Rugby Match v. Old Alleynians. Away.
Hockey Trial Match. Home.
Mon., „ 5.—Special Subjects: Lecture by Mr. Just.
Tues., „ 6.—Dr. Graham and Mr. Roberts on duty.
Wed., „ 7.—Surgery: Clinical Lecture by Mr. Vick.
Hockey Match v. Guy's. Away.
Thurs., „ 8.—**Abernethian Society: Lecture and Film by Sir Pendrill Varrier-Jones, "Papworth Tuberculosis Colony".**
Fri., „ 9.—Dr. Evans and Mr. Vick on duty.
Medicine: Clinical Lecture by Dr. Evans.
Sat., „ 10.—Rugby Match v. Old Blues. Home.
Hockey Match v. Beckenham. Away.
Mon., „ 12.—Special Subjects: Lecture by Mr. Bedford Russell.
Tues., „ 13.—Prof. Witts and Prof. Paterson Ross on duty.
Wed., „ 14.—Hockey Match v. R.M.A., Woolwich. Home.
Fri., „ 16.—Dr. Hinds Howell and Mr. Wilson on duty.
Medicine: Clinical Lecture by Dr. Graham.
Sat., „ 17.—Rugby Match v. Bedford. Away.
Hockey Match v. St. John's College, Cambridge.
Away.
Mon., „ 19.—**Abernethian Society: Inaugural Address by Professor Jung.**
Special Subjects: Lecture by Mr. Elmslie.
Last day for receiving matter for the November issue of the Journal.
Tues., „ 20.—Dr. Gow and Mr. Girling Ball on duty.
Wed., „ 21.—Surgery: Clinical Lecture by Mr. Wilson.
Rugby Match v. Cambridge. Away.
Hockey Match v. Staff College. Away.
Fri., „ 23.—Dr. Graham and Mr. Roberts on duty.
Medicine: Clinical Lecture by Dr. Harris.
Sat., „ 24.—Rugby Match v. London Irish. Away.
Hockey Match v. Romford. Home.
Mon., „ 26.—Special Subjects: Lecture by Mr. Bedford Russell.
Tues., „ 27.—Dr. Evans and Mr. Vick on duty.
Wed., „ 28.—Surgery: Clinical Lecture by Mr. Roberts.
Hockey Match v. London University. Away.
Fri., „ 30.—Prof. Witts and Prof. Paterson Ross on duty.
Medicine: Clinical Lecture by Dr. Gow.
Sat., „ 31.—Rugby Match v. E. M. Darmady's XV. Home.
Hockey Match v. Richmond and Kingston Hill.
Away.

EDITORIAL.



HE new academic year, long heralded, has opened in an auspicious manner with the birth of the new site in Charterhouse Square, and we are pleased to welcome the Freshmen, already hard at work in various departments of the Hospital. It is now to be hoped that they will very soon make their presence felt in one of the many fields of activity of the Students' Union, and some, we earnestly hope, with the pen by contributing to our columns. We only say—may the latent period be short, and good luck to them!

* * *

It is with very great regret that we have to record the retirement of Prof. Woppard from the post of Professor of Anatomy.

He has been with us for seven years, and we have all learned to recognize in him an admirable head of the Department. The organization of the Anatomical Department has never before reached such a degree of efficiency, and that this is due to Prof. Woppard's individual efforts none can doubt. Not only is the teaching in the Department of a very high order, but much valuable research work is being done in it. Moreover, the collaboration between the Anatomy Department and the Clinical Departments of the Hospital has become very close.

When it was suggested that the Medical College should move from within the Hospital walls, Prof. Woppard was a member of the Executive and Appeal Committees which were responsible for carrying the scheme through, and in that capacity he gave the Dean most zealous and able support. There can be no doubt that the new Department of Anatomy in Charterhouse Square is one of the finest in the country, if not the

finest, and it will remain a memorial of his vigorous and successful organization.

Although he is now leaving Bart.'s for a similar post at University College, it will, we feel sure, be with some



regret. He will, however, have the satisfaction of knowing that both his colleagues and the students of the Hospital appreciate to the full everything he has done. We wish him luck in his new post.

* * *

October 29th and 30th will see the Great Hall turned into a village street filled with eighteenth century shops and houses.

The Women's Guild are holding what promises to be an enormous Fair in aid of their funds, of which Christmas presents and household decorations will be the principal items. The bicentenary of the mural paintings by Hogarth on the staircase seems to call for a Hogarth Fair, and the committee room will be hung with some of Hogarth's original works lent by their owners.

The Matron and the nursing staff have kindly promised to provide teas and light refreshments throughout the two days.

The programme in connection with the Fair—containing many interesting articles on Hogarth and the Hospital—will be on sale at the annual meeting on October 1st and during both days of the Fair. It is very much hoped that everyone who can will buy one.

Owing to the inability of the Duchess of Kent to attend the Marchioness of Cholmondeley has kindly consented to take her place, and will open the Fair at 3 o'clock on October 29th. The opening on the second day will be by the Lady Mayoress.

* * *

The Harveian Oration will be delivered by Sir Walter Langdon Brown at the Royal College of Physicians on October 19th at 4 p.m.

The honorary degree of Doctor of Science at Oxford was conferred by the Vice-Chancellor on Sir George Newman, Sir Henry Dale and Sir Walter Langdon Brown to celebrate the Congress of the British Medical Association.

* * *

Dr. E. A. Cockayne has been appointed Bradshaw Lecturer for 1937 by the Royal College of Physicians.

* * *

The Medical Research Council have awarded Dorothy Temple Cross Research Fellowships in Tuberculosis to Dr. J. Smart and Mr. V. C. Thompson.

* * *

We are sorry to announce that the Hospitaller, the Rev. J. L. Douglas, is moving to the parish of Godmanchester, in Huntingdon, Cambridge, in the first week of October after fourteen years' devoted service to the Hospital. We offer him our best wishes in his new home.

* * *

Two items in the Calendar merit especial mention. First is the meetings of the Abernethian Society, at which everyone, and Freshmen in particular, are welcome. We note with great pleasure that the Society has been fortunate enough to get Prof. Jung, of Vienna, to deliver the Inaugural Address on October 19th. A very large attendance seems assured.

And secondly we would draw our readers' attention to the football match between the Hospital and E. M. Darmady's XV. A charge of sixpence will be made for admission and the proceeds are to go to the Squash Court Fund. It is hoped, then, that everyone who can do so will make an effort to be present.

* * *

We congratulate the Cricket Club most heartily on a magnificent performance in winning the Inter-Hospitals Cricket Cup.

OBITUARIES.

K. H. FISK.

FE regret to announce the death of Kenneth Hugh Fisk, a student of this Hospital, at the age of twenty-three.

His death occurred on September 1st in St. Bartholomew's Hospital. He had been on holiday in the Mediterranean, and contracted pneumonia on the homeward voyage three days from England. He was admitted to Sandhurst Ward on August 23rd, where he died nine days later after a short and losing battle against a disease which at no time showed any signs of abating.

Kenneth Fisk was the second son of Mr. and Mrs. H. Marcus Fisk, of Ilford. He commenced his studies at Bart.'s in 1929, taking the London M.B. course, and had hoped to complete his conjoint examinations in October of this year. He was completing his last official appointment at the time as Pathology Clerk to the Surgical Professorial Unit, the firm with which he had done his first six months' surgery.

As a scholar he had shown undoubted gifts and an amazingly logical mind, and he had shown promise of an unusually successful career in medicine. He was possessed of a sociable disposition and was a popular figure among his colleagues. There are many who will miss his cheerful good humour and genial companionship.

His premature death and the termination of a promising career are greatly regretted, and deep sympathy will be felt for his family in their bereavement.

A memorial service was held in the Hospital chapel of St. Bartholomew-the-Less on September 8th.

G. L. B.

CLEMENT STURTON.

Dr. Sturton's death at the early age of 36 brings to an end a career of promise. He was riding on the Common near Blythburgh, in Suffolk, when an accident occurred. Although at first his injuries were not considered serious, complications arose and he died at Norwich. At St. John's College, Cambridge, he won an Exhibition and received Second-class Honours in the Natural Science Tripos in 1920. In the same year he gained a Joint Shuter Scholarship at St. Bartholomew's Hospital. Five years later he passed the F.R.C.S.(Eng.).

Dr. Sturton's goal was the Mission Field, for his religion was sane and virile. He radiated cheerfulness. Hence he worked in the Belgian Congo with the African Inland Mission. Later he joined Government service,

and was placed in charge of a hospital at Lagos, Nigeria.

On his return to England he entered into partnership with Dr. A. G. Tolputt and Dr. T. H. Baillie at Kettering, Northants. He was on the staff of the Kettering Hospital.

Dr. Sturton married Mary, second daughter of Dr. Jabez Pratt Brooks. She survives him with three children, and much sympathy goes out to them in their sad loss.

W. McA. E.

THE CHURCH OF ST. BARTHOLOMEW-THE-LESS.

AS a result of the work that has recently been undertaken on the outer walls of the Hospital Church I have received many inquiries about the church's architecture and origin, and (under the guidance of Sir D'Arcy Power) I have compiled these notes for the benefit of those who have not realized hitherto that beneath the eighteenth-century plaster was concealed a building of considerable historical interest to all lovers of the Hospital.

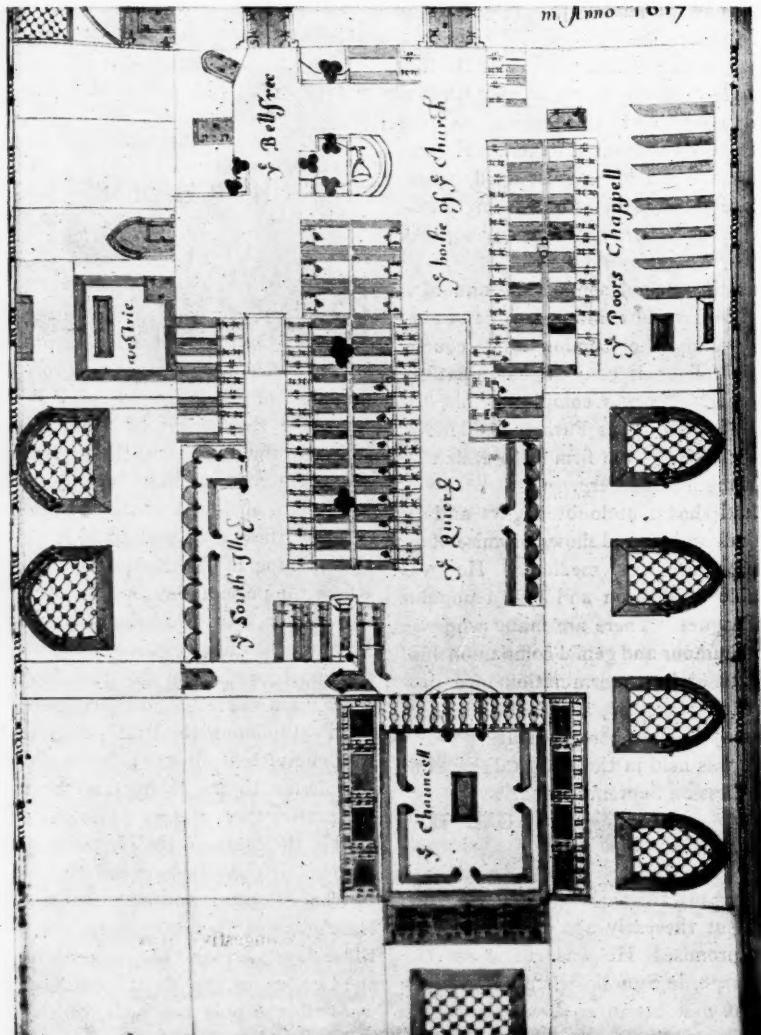
The earliest altar within the Hospital was co-eval with the opening of the Hospital, and was set in the hall, where the patients lay, so that all could see it. In 1147 the "door leading to the horse-market" (which was held in Smithfield), was ordered to be closed so that a chapel, dedicated to the Holy Cross, might be built upon the site now occupied by the Church of St. Bartholomew-the-Less. Apparently this chapel was not completed till 1183, when Pope Lucius III gave permission to the Master and Brethren of the Hospital to transfer their oratory to a more suitable place than it held in the centre of the Hospital, where it was too much hidden. Relations between the Master and Brethren of the Hospital and the Prior and Convent of St. Bartholomew-the-Great were not always amicable in those days; and in 1224, as a result of a quarrel between the two bodies, the Master and Brethren of the Hospital were allowed only two bells, which were not to be hung in a belfry, nor were they to be rung on Easter Eve until the five bells of the Priory had finished ringing. There was further trouble between the two bodies until, in 1373, it was agreed that the Master and Brethren "may obtain as many bells of whatever size they please; and build as fine a bell-tower as pleases them; and ring their bells on Easter Eve as soon as they like".

In all probability our present church tower was built immediately afterwards, and as a result of this agreement.

There are now four bells in the belfry, of which the second is by John Langhorne (c. 1400) inscribed

"Vincentius reboat ut cuncta noxia tollat"; and the third by Robert Crouch (c. 1440) inscribed "Intonat de celis vox campana Michaelis". The other two have been recast.

and that on the left lighted the way to the Sisters' quarters, which were built over the cloister on the south side of the church. The Chapel of the Holy Cross itself consisted of a central and two side aisles, separated by



PLAN OF THE CHURCH OF ST. BARTHOLOMEW-THE-LESS, 1617.

The church still shows signs of its original layout and of its pre-Reformation use. There is an ante-chapel resembling, on a small scale, the ante-chapel of New College, Oxford (built by William of Wykeham in 1383). Opening into the ante-chapel is a stairway in the bell tower, and above are two windows now blocked up; the one on the right gave light to the passage leading to the house of the Master of the Hospital,

three or five columns. The high altar, dedicated to the Holy Cross, was central; but it is not truly orientated, for the axis of the chapel is N.N.E. On the right side was St. Mary's Chapel; its site now contains the monument of Serjeant Balthrop; on the left-hand side in the N.W. corner was St. Catherine's Chapel, known later as the Chapel of the Poor. There appears to have been also a chapel dedicated to St. Gregory at the east end

detached from the church itself, but connected to it by a covered way.

The Chapel of the Holy Cross was well endowed. A record dated 1487 says that it had "(i) a pyx of silver over-gilt; (ii) a cross of silver gilded with an image seated upon it, to keep the sacrament in; (iii) a chalice silver-gilt; (iv) a cross of silver with many reliques therein; (v) two candle-sticks of silver parcel-gilt; (vi) two pax-boxes, a larger and a smaller, silver-gilt; (vii) a silver-gilt cross with Mary and John at the foot; (viii) two censers of silver; (ix) two silver cruets; (x) a ship and a silver censer; (xi) three chalices and two cruets of silver and gilt. The whole valued at thirty pounds".

It is not known how long this fifteenth-century chapel of the Holy Cross remained. It became the Parish Church of St. Bartholomew-the-Less by letters patent from King Henry VIII, dated January 13th, 1547, with a vicar paid £13 6s. 8d. yearly, and a sufficient mansion for his habitation; a hospitaller at £10; a parish clerk at £6; and a sexton at £4. The plan of the Hospital made in 1617 shows the Church with a high-pitched roof over the centre aisle, and apparently a flat roof over the side aisles.

The church was remodelled in 1789 by George Dance, who left the original tower and outer walls, but erected within them an octagonal wooden structure of eight arches. This soon fell into disrepair, and was replaced by the present structure in 1823 to the plans of Thomas Hardwick.

There are some interesting mural tablets in the church, especially :

(i) In the north-east corner, erected in 1555 in memory of William Hone, a churchwarden. The following is a translation of its Latin-verse inscription :

"Lo, beneath this tomb lies William Hone, a man just, upright in speech, and God-fearing in his heart. He, when he had honourably discharged the office of judge at the Guildhall for fifteen years, and had twice publicly lectured at the Temple upon the Laws of England, Death summoned him, saying, 'Hone, approach the supreme God, whose servant thou ever wert'. So he died, leaving his body to the earth and worms; but with his mind he scaled the stars of the lofty pale. This tomb his beloved wife Joyce erected—joyous by name, but in truth full of sorrow."

(ii) The memorial to Lady Bodley in the north-east corner. It was erected by Sir Thomas Bodley, the founder of the Bodleian Library at Oxford. They lived in a "Great House" within the Close from 1599 to 1612. Both died in the Great House, she in June, 1611, and was buried in the Church, and he on January 12th, 1613, and was buried with great ceremony in Merton College Chapel, Oxford. An account of the House with a plan is published in *The Bodleian Quarterly Record* (1936, vol. viii, p. 203).

(iii) In the south-east corner is the monument to the

memory of Serjeant Balthrop, who died in 1589. Its inscription runs :

"Here Robert Balthrop lies intombed to Elizabeth our Queen, Who serjeant of the surgeons sworne neere thyrtie yeers hath beene : He dyed at syxtie-nine of yeeres, December's ninthe the daye, The Yeere of Grace eight hundred twice, deductinge nine awaye. Let heire his rotten bones repose, till angell's trumpet sounde, To warne the world of present change and raise the dead from grounde."

(iv) In the ante-chapel is a canopied tomb in the late Perpendicular style, but it is not known for whom it was originally built. John Freke, Surgeon to the Hospital, and his wife were buried in it. Freke was a friend of Fielding, who twice mentions him in *Tom Jones*, and of Hogarth, for whom it is said he selected the patients for the canvasses on the staircase of the Great Hall of the Hospital.

(v) In the floor of the ante-chapel is a brass with the inscription :

"Hic iacent Wilhelmus Markeby de London, gentleman, qui obiit xi Julii A.D. 1439; et Alicia, uxor eius. Quorum animalibus proprietur Deus."
(The last sentence, as is usual, has been obliterated.)

Registers of Births, Deaths and Marriages dating from 1547 are preserved in the Church.

It is indeed a happy coincidence that at a time when the Hospital is undergoing much inevitable modernization, the restoration of its ancient church should have secured for posterity a conspicuous and an abiding reminder of the Rock whence it was hewn so many centuries ago.

J. L. DOUGLAS.

THE USE OF DRUGS IN HEART FAILURE.*

DIGITALIS.

N congestive heart failure the drug of universal application is digitalis. Its chief action is upon the bundle of His. This may be to some extent on the bundle cells themselves, but more probably is on the neuro-muscular vagal terminations in the bundle. Secondly, there is some evidence that there is an effect on the ventricular muscle proper.

The evidence of its action on the bundle of His is seen in the marked slowing produced in the ventricular rate in auricular fibrillation, in which condition the excessive auricular stimuli are prevented from reaching the ventricle. Other less well-known evidence of its action is illustrated by the following two facts: First,

* A Post-Graduate Lecture delivered at St. Bartholomew's Hospital on Saturday, June 20th.

in full doses it will prolong the PR interval of the electrocardiograph of a normal individual, its effect being removable immediately by an injection of atropin; it is clear, therefore, that the drug has a definite vagal action. Secondly, in full doses it will produce an inversion of the T-wave in the electrocardiograph of a normal person. This effect is not removable by atropin, and it is clear, therefore, that this part of its action is one upon the ventricular muscle.

The preparations that I personally use most frequently are three: first, the B.P. tincture; second, the dried leaf, digitalis folia, B.D.H.; third, digoxin, B.W. & Co. One grain of the dried leaf is equivalent to 10 to 12 minims of the tincture, and one tablet of digoxin or 0.25 mgrm. is the equivalent of 15 minims of the tincture. The merits of these latter preparations are that digoxin is very rapidly absorbed and the digitalis folia tablets are much more portable than the equivalent doses in fluid form, besides being exceedingly durable.

ACTION IN AURICULAR FIBRILLATION.

Reference has already been made to the action of the drug in auricular fibrillation, by producing ventricular slowing. It is essential to remember that in this irregularity, particularly in cases of failure, the force of individual beats varies so greatly that many fail to reach the ventricle. The pulse-rate, therefore, in these cases is an untrustworthy guide to the condition of the heart, and it is essential that a nurse should be employed who can be trusted to count the heart-rate at the apex through a stethoscope, the figures being charted 4-hourly. In order to avoid confusion it may be thought wise in these circumstances to give instructions that the *pulse-rate* be not counted at all. The results of the slowing produced by increasing the block in the bundle of His are as follows: Better filling of the heart is produced as the result of the prolonged diastole; as a result, a more efficient emptying occurs. The prolonged diastole results in a more efficient and more prolonged coronary flow, this producing an improvement in the cardiac nutrition. Finally, the decreased number of systoles results in considerable cardiac rest.

DOSAGE.

There are three chief methods of administering digitalis in heart failure: (1) The rapid method: This is used in cases of a very severe failure, where a rapid result is desirable. Digoxin is the most valuable preparation for this purpose, as its rate of absorption is very much faster than that of the tincture or other preparations. Four tablets should be given as a first dose, and in 6 hours if the heart-rate has not fallen,

four more tablets may be given. It will generally be found, however, that a smaller dose is adequate after 4 hours, as the heart-rate has already fallen appreciably. After a further period of 6 hours another dose of from two to four tablets, according to the persistent severity of the case, may be given. The second method of treating severe heart failure in order to obtain a very rapid result is by the use of intravenous strophanthus or ouabain. This can be given intramuscularly in doses of $\frac{1}{240}$ to $\frac{1}{120}$ gr. The larger dose can be repeated once only after an interval of 12 hours. Intravenous strophanthus should never be given to a patient who has previously been taking digitalis. Should it be desirable to treat a patient with severe congestive failure, who from some other cause is vomiting persistently, tincture of digitalis may be administered *per rectum*. The usual dose for an adult is 3 drm., 2 drm. and 1 drm., at intervals of 6 hours, *per rectum*, each dose being given in 2 oz. of water.

(2) A case of average severity: The usual dosage for these patients is tincture of digitalis 20 minims four times a day for 2 or 3 days, the dose being then reduced to 15 minims four times a day.

It is advisable in all cases of heart failure to whom digitalis is given that the patient shall at first be fairly fully digitalized, even if this entails giving digitalis in doses of 60 minims a day for 3 or 4 days only. A maintenance dose can then be administered, generally amounting to between 20 and 30 minims *per diem*, for the average body can metabolize a dose of about this magnitude without the drug having a cumulative action.

SIGNS OF OVERDOSE.

The chief signs of overdose are nausea and vomiting, coupling of the ventricular beats, visual disturbance and finally anuria. Unless some of his patients show occasionally some nausea and even vomiting from digitalis, it is probable that the physician is not administering the drug in the majority of his cases so as to produce its maximum effect. Coupling of the ventricular beats can generally be easily recognized by listening at the apex, when the fainter second beat can be heard to occur at a fixed interval from the louder normal one. The commonest visual symptoms are xanthopsia and a vague subjective sensation of mistiness or blurring of vision. It may be remarked that a slow heart-rate as such is not dangerous, and is not a necessary indication of digitalis overdose. It is only significant of this if associated with definite coupling of the beats. I have seen a case of complete heart-block with oedema of the legs and feet respond definitely to full doses of digitalis, although, of course, the drug could not increase the

already complete lesion of the bundle, or have any action on the ventricular rate.

THE ACTION IN AURICULAR FLUTTER.

This condition, which is commoner than is usually appreciated, should be suspected whenever a persistently rapid heart-rate of between 90 and 120 is found in an elderly patient associated with symptoms of heart failure that have been present for a definite period of time. This fairly abrupt diminution in cardiac efficiency has generally lasted for a matter of weeks or months. The most satisfactory way of treating these patients is to poison the fluttering auricular muscle with full doses of digitalis, and I generally give a dose of 90 minims of the tincture *per diem*, or its equivalent in digoxin or digitalis folia. This dosage is maintained for two or three days, a careful watch being kept for signs of early poisoning. The dose is then reduced to 75 minims per day or so, depending upon the tolerance of the patient to the drug for a further period of 4 or 5 days. It is generally found after this that the auricular flutter has been replaced by auricular fibrillation. After a further few days, on possibly 45 minims per day, the drug is withheld and the normal cardiac rhythm in some cases returns. It not infrequently happens with this dosage that the normal cardiac rhythm returns without an intermediate period of auricular fibrillation.

ACTION IN PAROXYSMAL TACHYCARDIA.

The treatment of paroxysmal tachycardia falls under two headings—treatment of the attack, and prevention of attacks. Among other measures digitalis in full doses can be tried when a case of paroxysmal tachycardia has lasted for several days. Under these circumstances full doses should be given—between 75 and 90 minims of the tincture per day. In some patients who have frequent milder attacks of paroxysmal tachycardia, digitalis in doses of 10 or 15 minims three times a day will sometimes prevent the development of attacks.

ACTION IN CONGESTIVE FAILURE WITH REGULAR RHYTHM.

Mention has already been made of the effect of digitalis on the normal electrocardiograph, and as used in a case of complete heart-block with a fixed ventricular rate of 32. These pieces of evidence suggest that the drug should be used in heart failure, even in the absence of auricular fibrillation, although of course the likelihood of its being of any great benefit is considerably less. Many cardiologists take a similar view, and it appears to have a definite effect, more particularly in elderly individuals with a slight degree of failure, particularly

perhaps the group in which chronic bronchitis appears to be a salient feature. These patients should remain in bed for a week, should be fully digitalized for 3 or 4 days, and then allowed up on a maintenance dose of between 30 to 40 minims of the tincture *per diem*.

QUINIDINE SULPHATE.

Quinidine sulphate has no place in the treatment of failure as such. Every function of the cardiac muscle is diminished by the drug. Systole is weaker, the blood-pressure is reduced, the conductivity is diminished, and the power of muscular recovery after contraction is very greatly impaired. This latter effect is also known as prolongation of the refractory period. The chief use of quinidine results from this action, as it can in this way stop the circus movement of auricular fibrillation or that of auricular flutter. Since auricular flutter is frequently associated with evidence of congestive heart failure, quinidine may be said to have an indirect effect on heart failure, but only in these specialized cases.

The chief indications for the use of the drug are (1) a determination to stop auricular fibrillation in a patient, (2) to stop auricular flutter, (3) to inhibit too frequent premature beats when these are distressing to the patient. The following points should be borne in mind in the treatment of auricular fibrillation or auricular flutter by quinidine: Firstly the drug is very rapidly absorbed and as rapidly excreted. In order, therefore, to maintain it at a reasonable concentration in the blood-stream it should be given at 2-hourly intervals. Secondly, since the action of the drug is to produce a certain degree of general myocardial poisoning in a patient whose heart is not healthy, the nursing precautions usual in a case of diphtheritic myocarditis should be maintained. The patient should be nursed flat and should not be allowed to wash himself, feed himself, or get out of bed for any purpose at all. Thirdly, a more satisfactory quinidine effect is obtained if the patient has recently been treated with digitalis. The following is the usual scheme of dosage. During the first day 1 gr. is given three times a day in order to ensure that the patient is not sensitive to quinine derivatives; such sensitivity would show itself by buzzing in the ears, deafness and headache. During the second day 2 gr. of quinidine sulphate are given 2-hourly for eight doses. During the third day 3 gr. are given 2-hourly for eight doses. During the fourth day 4 gr. are given 2-hourly for eight doses. Unless the physician has had full experience with quinidine, it is inadvisable to increase the dose beyond this figure. It should, however, be maintained at 32 gr. per day for 3 or 4 days. If at the end of that time there is no change in the heart's rhythm, it is advisable to cease the treatment. Should the

normal rhythm return as a result of treatment, a maintenance dose of 2 or 3 gr. *t.d.s.* can be given. It is probably best to give the drug as a mixture during the treatment, the following prescription being satisfactory:

Quin. sulph.	gr. ij-iv
(according to the day).	
Acid sulph. dil.	mx
Syrup of orange	3j
Aq. chloroformi ad	3ss

For the maintenance dose tablets can be obtained.

The chief contra-indications to the use of quinidine are (1) the presence of marked cardiac failure, (2) mitral stenosis, (3) much cardiac enlargement, (4) long-standing auricular fibrillation. In patients in whom premature beats produce either pain or else persistent discomfort, quinidine sulphate is frequently useful. I have found it most efficacious when combined with atropine sulphate in the following mixture:

Quin. sulph.	gr. iij
Atrop. sulph.	gr. $\frac{1}{150}$
Acid sulph. dil.	mx
Infusion of orange to	3ss

DIURETICS.

Diuretics are definitely useful in heart failure, and should be used whenever there is persistent cardiac oedema. It is probable that the presence of the oedema fluid interferes to some extent with the local tissue metabolism, and thus indirectly produces an added handicap to health. The most valuable are the mercurial diuretics. Mercury, as one of the constituents of Guy's pill, has long been used for this purpose, but of recent years more powerful mercurial drugs have been evolved. Salyrgan, which contains about 34% of mercury, is the most useful of these. Novurit is a similar drug, but is used *per rectum*. In order to obtain the best results from these drugs, it is advisable that the patient should have been taking ammonium chloride 15 to 20 gr. *t.d.s.* for 3 days. An injection of salyrgan is then given intravenously or intramuscularly, and this can be repeated every 4 or 5 days, the ammonium chloride administration being continued throughout the period of treatment. Some patients appear to produce a better diuresis from the intramuscular and some from the intravenous administration. The dose at first should be $\frac{1}{2}$ c.c., and this can be increased to 1 or 2 c.c. It should be remembered, however, that mercurial poisoning may result, and the smallest dose, therefore, which produces a reasonable diuresis should be used. The chief danger-signals are a metallic taste in the mouth, stomatitis, gastro-intestinal disturbance and albuminuria.

Novurit is a similar preparation, and its chief advantage is that it can be used *per rectum*. Care should be taken that the rectum is empty when the novurit suppository is inserted. There is one disadvantage, and that is that some local irritation may be produced, resulting in diarrhoea and expulsion of the drug. In certain cases, however, the results are exceedingly good. The chief dangers of the mercurial diuretics are evident in patients suffering from renal disease, particularly in association with arterio-sclerosis. I have seen several fatalities associated with complete suppression of urine in such cases. The other diuretics which are useful in heart failure are diuretin 10-15 gr. *t.d.s.*, theophyllin 5 gr. *t.d.s.*, and urea 2-4 drm. in lemonade *t.d.s.* Although Southey's tubes hardly come under the heading of a drug, it may be mentioned here that their use in certain cases of persistent cardiac oedema is attended sometimes by very considerable removal of fluid and a marked improvement in the patient's general condition.

Oxygen is theoretically contra-indicated in heart failure, for the slowed pulmonary circulation actually increases the time available for full oxygenation of the blood in the lungs. It generally happens, however, that heart failure is associated with a greater or lesser degree of pulmonary oedema, and under these circumstances a raised oxygen tension is a great help in assuring a full oxygenation of the pulmonary blood. Oxygen as administered by funnel is useless. It can be given by nasal catheter, and if tolerated, by mask or oxygen tent. If a nasal catheter is used the rate of flow should be watched by the use of a Woolf's bottle, and a brisk flow of five or six bubbles per second should be kept up. The patient should be encouraged to inhale the oxygen thus for periods of 5 or 6 hours at a time.

MORPHIA.

If it is felt that morphia is necessary for pain or for any other purpose, there is no contra-indication to its use in patients suffering from heart failure. I have never seen morphia in large doses produce any deleterious effect in patients with an extensive coronary thrombosis. It should not be used, however, if there is a considerable amount of bronchitis.

Certain other drugs are used in cases of emergency. *Adrenalin*: The action is exceedingly transitory, and it is most useful in cases of cardiac standstill, 1 or 2 c.c. being injected direct into the heart muscle. Patients with heart-block and frequent Stokes-Adams attacks are very considerably helped by injections of adrenalin subcutaneously; $\frac{1}{2}$ -1 c.c. two or three times a day is generally sufficient to prevent attacks. In one case, a boy, æt. 17, who was having Stokes-Adams

attacks every 5 minutes as a result of severe diphtheritic myocarditis, ceased having attacks with a dosage of 2 c.c. intramuscularly every 2 hours. He eventually died. Camphor, strychnine, cardiazole and coramine have no direct effect on the heart muscle. Their chief value is generally in stimulating the respiratory and vaso-constrictor centres in the medulla, and should there be evidence that these are failing, their stimulation may produce a beneficial reflex effect on the heart.

GEOFFREY BOURNE.

RECENT ADVANCES IN HORMONE THERAPY.*

INTRODUCTION.

WITHIN recent years much experimental work has been carried out on endocrine problems, and has added considerably to our knowledge of the physiology of the endocrine system, but the therapeutic application of this knowledge is still in its infancy. This is due partly to the fact that it is only recently that sufficiently pure and concentrated extracts have been produced for human administration, and partly to the fact that the expense of these products often prevents their extensive use. Extracts have also been obtained which so far appear to have little clinical application, but with the advance of knowledge there is no doubt that they will find a place in the treatment of certain conditions.

Before briefly surveying the use of various hormones in treatment, it will not be out of place if a few words be said about the physiology of the anterior pituitary, as there is no doubt that this organ, small though it be, plays an important part in governing the development and function of the rest of the endocrine system. It is well known that removal of the pituitary in experimental animals leads to atrophy of the endocrine glands, with disturbances in the organism as a whole consequent on the lack of specific secretion of each individual gland. Clinically this is well shown in the rare condition of Simmonds's disease, the symptoms of which are caused by destruction of the anterior lobe of the pituitary by a tumour or embolus, or by simple atrophy. In this malady the chief features are profound cachexia, mental changes, loss of the hair and teeth, atrophy of the testes, prostate and seminal vesicles, amenorrhoea and atrophy of the uterus and ovaries, a low blood-pressure probably due to atrophy of the suprarenals, low basal metabolic

rate, anaemia and hypoglycaemia. The deficiencies resulting from removal of the pituitary in the laboratory animal are almost completely repaired by the implantation of fresh anterior pituitary tissue.

From the widespread changes produced by the removal or destruction of the anterior pituitary one is little surprised at the numerous extracts with different properties that have been prepared from this organ. It is not in the scope of this lecture to give an account of the actions of all these factors. Suffice it to say that at the present time it is considered that the anterior pituitary hormones consist of the following :

1. *Growth hormone.*
2. *Gonadotropic hormones*, including—
 - (a) The ovarian follicle and male germ-cell stimulating hormone.
 - (b) The luteinizing hormone, which also stimulates the interstitial tissue of the testes.
3. *Thyrotropic hormone*, which stimulates the thyroid to produce an increased amount of its iodine-containing hormone.
4. *Adrenotropic hormone*, through which is stimulated the cortex of the suprarenals.
5. *Parathyrotropic hormone.*
6. *Metabolism or diabetogenic hormone*, which consists of a blood-sugar raising principle and a ketogenic principle.
7. *Pancreatotropic hormone*, which depresses the level of the blood-sugar and depletes the liver glycogen. It has no effect after removal of the pancreas.
8. *Lactogenic hormone* (prolactin), which excites milk secretion in the fully-developed mammary gland.

It is remarkable that so small an organ can elaborate so many substances with such widely different functions. Zondek has suggested that they are derived from a basic substance by comparatively insignificant changes in its molecule, and if one takes as an analogy the close chemical relationship between oestrin and the male sex hormone, I imagine that this view is not far from the truth.

HORMONE THERAPY.

The use of endocrine preparations gives more scope to the quack than almost any other branch of therapeutics, and in the daily armful of circulars which one receives claims are made which have no clinical proof or scientific basis whatsoever. This is disturbing to the practitioner who for lack of time is unable to delve into the welter of published papers, which are ever increasing. My remarks will be confined mainly to the use of preparations in conditions in which I have had personal

* A Post-graduate Lecture delivered at St. Bartholomew's Hospital on June 20th, 1936.

experience, and for this reason I will say little of their value in gynaecological states.

ANTERIOR PITUITARY HORMONES.

Of the anterior pituitary hormones that have been enumerated three are available for clinical use—the growth hormone, the gonadotropic hormone, and the thyrotropic hormone. As yet they are expensive, and little work has been done to demonstrate their full value in clinical medicine.

Growth hormone.—There have been reported mainly in the United States cases of pituitary infantilism, in which increased growth has been obtained by the injection of 1 c.c. of growth hormone three times weekly for several months. The earlier such treatment is instituted the better is the response, the most favourable results being in cases in which there is a delay in osseous development and epiphyseal closure. Once epiphyseal closure has occurred, further stimulation of statural growth is prevented. It has been found that growth hormone in conjunction with thyroid gives better results than growth hormone alone. I have had no experience, however, with this hormone. At the present time there is no method for its standardization, and one is never sure of its activity.* Further, it is well known that cases of infantilism may occasionally have spurts of spontaneous growth.

Gonadotropic hormone.—From work on laboratory animals it has been found that the gonadotropic hormones of the anterior pituitary consist of two main factors. One factor (prolan A) in the female brings about maturation of the Graafian follicle, and as a result the production of oestrin, which acts on the uterus; in the male it stimulates spermatogenesis. The other factor (prolan B) in the female converts the follicles into corpora lutea, imprisoning the ova, inhibits the production of oestrin and stimulates the production of progestin, the hormone formed by the corpus luteum. In the male this luteinizing factor stimulates the interstitial tissue of the testes, so that this hypertrophies and produces increased amounts of the male sex hormone. This in turn increases the size of the penis and scrotum, and causes enlargement of the seminal vesicles and prostate by acting on their fibro-muscular stroma and glandular elements.

In pregnant women gonadotropic hormones resembling in action those of the anterior pituitary are excreted in large quantities in the urine. Being more easily

* Since this lecture went to press, I have learnt that standardised commercial preparations of growth hormone may now be obtained. A unit of growth hormone is the minimal daily amount which, when injected intraperitoneally into a mature female rat, will cause an average daily increase of 1% in body-weight over a period of at least 10 days. (Parke, Davis & Co.)

obtained, they are cheaper than those extracted from the anterior pituitary, and are consequently more widely used. They are not, however, identical with the anterior pituitary gonadotropic hormones and are probably placental in origin. Pregnancy urine extracts contain larger quantities of prolan B than of prolan A; consequently when they are injected into laboratory animals the action of prolan B predominates, in that marked luteinization is produced in the ovary in the female and hypertrophy of the interstitial tissue of the testis in the male. There is little or no effect on spermatogenesis. Of the various commercial preparations may be mentioned prolan, pregnyl, antuitrin S., gonan and follutein.

Undescended testes.—It has been shown that daily injections of pregnancy urine extract containing gonadotropic hormones bring about descent of the testes in 14 days in the immature monkey, in which animal they are normally situated in the inguinal canals. The gonadotropic hormones of pregnancy urine have been applied to the treatment of undescended testes in man. In collaboration with Dr. E. F. Scowen, I have used them extensively in this condition. Before considering treatment, care should be exercised in determining (1) the situation of the testis—if the testis be ectopic, *i. e.* lying outside the inguinal canal, descent of the organ cannot be brought about by hormone therapy—and (2) whether the testis can be brought into the scrotum by manual pressure; if it can it is extremely likely that the testis will descend spontaneously before or at puberty. In this type of case, however, the administration of prolan will speed its descent.

The ages of our early patients ranged from 4 to 26 years. The dose of hormone recommended by us is 500 rat units given twice weekly intramuscularly; in obstinate cases it is our practice to give the injections for three months alternated by three-monthly rest periods, as there is experimental evidence that the organism acquires a resistance to the hormone after prolonged administration. Descent of one or both testes occurred in 75% of our bilateral and in 60% of our unilateral cases. The duration of treatment varied from 3 weeks to 14 months.

There are no alarming reactions as a result of the treatment. After the first, and occasionally after the second injection, there may be local pain and swelling. In rare cases after the first injection there may be a general reaction, consisting of malaise, anorexia, nausea and headache. Inguinal hernia is frequently associated with an undescended testis, and in some cases a hernia becomes obvious during treatment. It is probable that the hernia was present from the beginning, and only became noticeable as the testis descended, the hernial

sac presumably descending with the testis. In such cases the hernia should be cured by radical operation. During treatment there are usually some enlargements of the penis and testes and growth of pubic hair.

If treatment be started when the patient is very young, precocious sexual development may occur. If, however, it be delayed till puberty in the hope of spontaneous descent, degenerative changes may take place in the testis. It is wise, therefore, to begin treatment between the ages of 10 and 13 years.

Azoospermia.—There is no doubt that in an animal in which the testes have atrophied as a result of removal of the pituitary, the daily injection of gonadotropic extract from the anterior pituitary will stimulate spermatogenesis. Whether pregnancy urine extract will bring about the same effect is controversial. There have appeared one or two reports of cases of sterility in man due to deficient spermatogenesis which have been successfully treated with urinary gonadotropic hormones. In view of the experimental findings, however, that anterior pituitary extracts are far more effective than urinary extracts in stimulating spermatogenesis in the hypophysectomized animal, they are more likely to prove successful in the treatment of azoospermia in man.

While dealing with the question of sterility in the male, it should be remembered that a considerable percentage of patients with definite hypothyroidism are sterile, and that adequate thyroid secretion is essential for the normal function of the gonads. In the investigation of a case of sterility the thyroid factor should be taken into consideration, for the administration of thyroid is occasionally of great value.

Obesity.—In obesity of the so-called "pituitary type" pituitary and urinary gonadotropic hormones have no effect in reducing the weight or amount of fat. This agrees with the experiences of most observers. The most effective means at present known of treating obesity is to reduce the intake of food, with or without thyroid medication.

Functional uterine haemorrhage.—Concerning the treatment of this condition I am not entitled to speak, as I have had no personal experience. It appears to be the experience of gynaecologists that the injection of urinary gonadotropic hormones in doses of 100 to 500 rat units daily results in an immediate or early relief of symptoms. The injection of corpus luteum hormone (syn. progestin, prolucon, corporin) brings about the same effect. One may justifiably conclude from this that prolan causes cessation of bleeding by stimulating corpus luteum formation. This, however, appears to be incorrect. There is no evidence of a corpus luteum effect on the endometrium after the bleeding has stopped, and it is considered that prolan rapidly diminishes the

secretion of oestrin by causing regression of the ovarian follicles.

Thyrotropic hormone.—As far as one can tell at present, the clinical application of this hormone is extremely limited. In cretinism and myxedema, in which the thyroid gland is exhausted or atrophic, thyrotropic hormone has little or no effect (Scowen)—a state of affairs which, considering the pathology of these diseases, one would logically expect. In other conditions, e.g. obesity, results can be obtained more cheaply and as effectively by dried thyroid substance.

In the rare condition of Simmonds's disease, in which the thyroid gland is inactive through lack of stimulation by the anterior pituitary, the thyrotropic hormone has its uses. The rational procedure in the treatment of this disease is to supply the pituitary hormones in which the organism is deficient. Preparations are now on the market containing 150 units of thyrotropic hormone and 50 units of anterior pituitary gonadotropic hormone per c.c. The dose required will depend on the severity of the disease. Because of suprarenal atrophy cortin may also be necessary in initial daily doses of 5-10 c.c. intramuscularly.

THYROID.

The uses of thyroid hormone are well known and do not require enumeration here. I would remind you that in the treatment of simple goitre, thyroid is far more effective than iodine. The rationale of treatment is to rest the thyroid as completely as possible in order to cause atrophy of some of the epithelial elements. In a simple hyperplastic goitre, in which there is considerable hyperæmia, iodine reduces the size of the gland by causing disappearance of the hyperæmia during involution to the colloid state. The gland, however, has still to manufacture thyroid hormone, so that there will be little further diminution in its size. The most effective means of ensuring as complete rest to the thyroid as possible is to give dried thyroid substance. The mistake is frequently made of not giving sufficiently large doses. It is said that the daily dose of dried thyroid that should be given to a completely thyroidless individual to maintain a normal basal metabolic rate is about 5 gr. Therefore, in order completely to rest the thyroid in a patient with simple goitre one should try to give at least 5 gr. per day, a careful watch, of course, being kept on the weight, pulse-rate and general condition. The best plan is to start with doses of 1 gr. twice daily and gradually increase to the patient's tolerance. It is obvious that in old-standing nodular and colloid goitres with much fibrosis, cystic degeneration or calcification, little or no reduction in size can be obtained by medical means.

PARATHYROIDS.

The chief therapeutic value of parathyroid extract (syn. parathormone) is dependent on its action in raising the level of the blood calcium. Its major use therefore lies in the treatment of acute tetany following accidental removal of the parathyroids during thyroidectomy. Large doses may be required—40–100 units per day subcutaneously; it is advisable to give in addition calcium chloride 30 gr. three times daily by mouth. The immediate relief of tetanic symptoms, however, may be obtained just as effectively and more rapidly by the intravenous administration of 50 c.c. of a 4% solution of calcium chloride. Care should be taken that it be given slowly, and that none enters the subcutaneous tissues, as necrosis and ulceration may result. To avoid such a complication, 10 c.c. of a 20% solution of calcium gluconate may be given instead of calcium chloride. In the treatment of chronic tetany parathormone may be dispensed with, a cheaper and equally effective method being the administration of 30 gr. of calcium lactate and 30 minimis of radiostol three times daily.

Parathormone has been recommended for ulcerative colitis, given in 20-unit doses on alternate days in conjunction with 60 gr. of calcium gluconate three times daily. It is sometimes useful in relieving the abdominal pains associated with intestinal spasm in this condition.

SUPRARENAL CORTEX.

The use of suprarenal cortical hormone (syn. cortin) in the treatment of Addison's disease is now well known, and since the discovery that there is an increased excretion of sodium associated with a low blood sodium in this condition, the administration of sodium chloride in doses of 10–20 grm. per day has considerably reduced the amount of cortin which these patients require (Graham). In fact in mild cases treatment with salt may even render the administration of cortin unnecessary. In more severe cases, however, patients always feel much better when receiving cortin in addition to salt, and often the administration of cortin is absolutely essential. In crises 50 c.c. of cortin should be given intravenously together with a glucose saline. The maintenance dose required will, of course, vary in each case (5–20 c.c. daily).

Cortin is also of use in the treatment of shock. After severe infections, such as diphtheria, pneumonia and influenza, in which there may be some cortical damage, cortin may be of service in treating the asthenia which persists during convalescence. It is also suggested that it is useful in infantile marasmus—a statement

which requires further investigation. I have seen no benefit following its administration in toxic goitre.

OVARIES.

Female sex hormone (œstrin).—The proprietary preparations of this hormone are known as theelin, menformon, œstroform, progynon, folliculin and amniotin; more potent and more soluble preparations are known as dimenformon, œstroform B and progynon-B oleosum. The treatment of gynaecological conditions, such as primary amenorrhœa, in which œstrin is of value, is in the province of the gynaecologist rather than the general physician, and will not be dealt with in this lecture. I have found œstrin of value in the treatment of menopausal conditions in doses of 1000–10,000 international units daily by mouth. Owing to its action on the vaginal epithelium, it has recently been used for vulvo-vaginitis of children (gonococcal and non-gonococcal). For this condition the doses suggested are 4000–5000 international units daily by mouth or 1000–2000 units daily subcutaneously for periods varying from 1 to 3 months. Usually the discharge clears up after 3 or 4 weeks' treatment. Should relapses occur the treatment should be repeated, or a single large dose of 50,000 international units may be given intramuscularly.

Œstrin causes no improvement in toxic goitre, even when given in very large doses (50,000 units intramuscularly for 3 weeks). It is said to lower the blood-pressure in essential hypertension, to make the hair grow in alopecia, and to make the hair fall out in those who have a superabundance, but all my attempts with the hormone in these conditions have resulted in failure.

A. W. SPENCE.

BACCHUS IN BELGRAVIA.



HOLD between my shaking fingers one of the most sensational documents—even its cover is bright yellow—that ever fluttered a dove-cote.

And I feel, now that the numbness of the first horror has worn off, rather like the Director of the Council for the Protection of Public Virtue in the State of Philadelphia confronted by a copy of Casanova's *Memoirs*.

The present pamphlet is not by Casanova. It is by Dr. Courtenay Weeks, and it is called *Alcohol in Hospital Practice*, published under the auspices of the National Temperance League. With the very interesting and instructive matter which it contains I am not, as a life-long total abstainer, much concerned, being firmly convinced that alcohol rots the gut, cirrhoses the liver, enlarges the spleen, atheromatizes the aorta, swells the

joints, softens the cortex, makes the teeth drop out, and generally leads to complete mental, moral and physical decay, with progressive delirium tremens precipitating the poor deluded toper into an early and a shameful grave, unmourned, unhonoured and unsung.

Indeed, so detached was I, and so full of confusing statistics was the little book, that I am not even sure whether the book was for or against the use of liquor in hospital practice. If it was in favour of it, then all I can say is that it is a disgraceful business altogether, and ought to be stopped.

On p. 10, however, there is a list of London hospitals with their respective sizes, the annual expenditure on wines and spirits, the expenditure on milk, and the cost *per capita* of the alcohol.

St. Bartholomew's, I am very glad to see, is so dry as to be almost in a state of drought, expending £78 14s. 1d. on 10,316 in-patients, or 1·8 pence per head—almost a record in a list which varies for the most part between twopence and sixpence. On milk we spend nearly £5000 per annum.

But—and here a clammy sweat broke out on my brow—another London hospital, not 375 miles away from Hyde Park Corner, with only half as many in-patients, spent close on £500 in wines and spirits alone, or a cost *per capita* of 20·4 pence—far and away the highest figure on the list.

Now what is the reason for all this? Is Mr. A. P. Herbert on the Board of Governors? Do happy Bacchanalias take place nightly behind those apparently sober walls, some surgical Silenus handing round the foaming tankards to the laughing patients, some new Dr. Rabelais, with purple stained mouth, splitting his shaking sides as he knocks the top off another bottle, or hurries to the operating theatre to broach another keg? We cannot tell. We have never been present.

Mark you, they have considerable support for such therapeutics. The ancients called Bacchus "Liber pater a liberando", Father Liber, because he liberated. Horace, in the 11th ode of Book 2, remarks, "Curas edaces dissipat Evius"—the God of Wine dissolves heart-eating Care—and again, "Nunc vino pellite curas". We find him echoed by such mature and experienced minds as those of Gellius, Placentius, Avicenna, Sminyrides the Sybarite, who saw no sun rise or set so much as once in twenty years so earnestly did he devote himself to wine, by Petronius in *Tacitus*, by Seneca, who insists upon it again and again, by Valescus de Taranta, *Sylvaticus*, a late writer and physician of Milan, *Oribasius* (5 *Collect.*, cap. 7), *Mathiolus*, "in *Dioscordium*", by Virgil in the *Aeniad* and other books, by Arnoldus in his *Aphorisms*, "who preferred it above all other medicines, in what kind soever", by Homer, *Sallust*,

Ovid, and even Heliogabalus in *Lampridius*. These are just a few that I have run across in the normal course of my reading.

And if these are not sufficient there yet remains an even more august authority, for "it gladdens the heart of man", say the Psalms, and Solomon, in his *Proverbs*, XXXI, 6, bids the unfortunate "drink that he may forget his poverty, and remember his misery no more". "Give wine to them that are in sorrow" say the *Scriptures*, and St. Paul bids Timothy drink wine for his stomach's sake. St. Chrysostom says "ad laetitium datum est vinum"—wine is given us for mirth—and the prophet Zachary and *Bartholomaeus Angelicus* echo him.

This, you will agree, is weighty evidence, and not lightly to be set aside, and I expect the staff of the hospital in question have been into it all pretty fully, before they decided to embark on the gorgeous primrose path that leads so soon to roses and raptures. It is not every hospital in London which can claim the lesson of Timothy's stomach, and know that they have the approval of *Bartholomaeus Angelicus* for their therapeutic measures.

Of course maybe I am mistaken about all this. Maybe those long, cool wards don't ring nightly to the merry shouts of intoxicated convalescents, and the gentle hiccups of happy house-surgeons. Maybe there are no vine-leaves wreathed in the nurses' hair, and festooned about the theatre lamps. Maybe they just use the stuff to preserve pathological specimens in.

G. FLAVELL.

A CASE OF INTERSTITIAL HYDROCELE.

AN interstitial hydrocele is bilocular in form, consisting of one loculus which lies inside the scrotum and another which passes upwards towards the abdomen. The constricting neck separating the two lies in the inguinal canal. The hydrocele originally forms in the upper part of the scrotum above the testicle, and as the fluid increases in amount it becomes larger and spreads up through the inguinal canal, either pre-peritoneally or retro-peritoneally, the latter situation being the more common of the two.

The pre-peritoneal hydroceles usually lie between the peritoneum and the muscle-layers, but may lie in between the muscles of the abdominal wall, or even superficial to them.

Charles A., æt. 25, a moulder, was admitted to *Percival Pott Ward* on June 7th, 1936, under the care of the *Surgical Professorial Unit*. He was complaining of a swelling in the lower part of the right side of the abdomen.

The history was that he had noticed the lump four months previously, when it was situated in the upper part of the scrotum. There was no history of injury. It was quite small at first, but gradually increased in size, spreading both downwards into the scrotum and upwards in the abdominal wall. It was always soft in consistency and never caused him any pain. It did not seem to increase in size as the day wore on, but became smaller on lying down.

His alimentary system appeared normal, his bowels were always quite regular, and he had no urinary symptoms. He had no cough or evidence of tuberculosis, and in his past and family histories there was no account of syphilis or gonorrhoea.

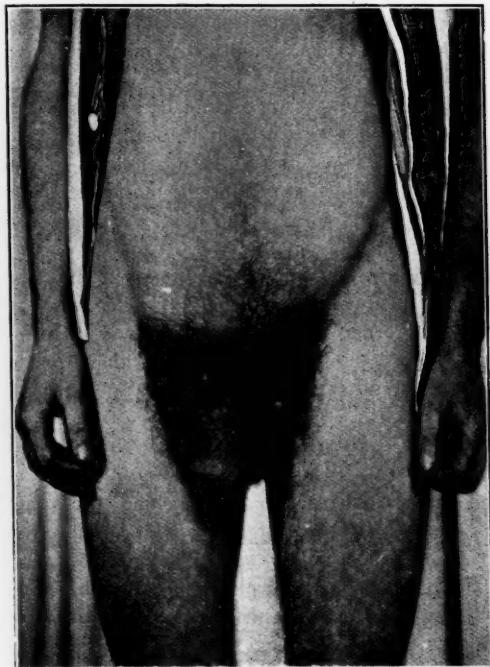
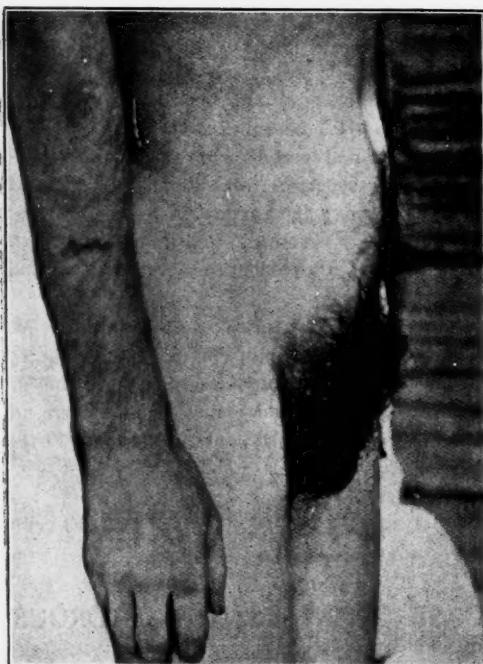
On examination of the abdomen the lower part below the umbilicus was swollen, more particularly on the right side, the swelling extending out nearly to the anterior superior iliac spine, but also 2 in. to the left of the mid-line. The skin over the swelling was normal

The urine was normal in specific gravity, appearance and constituents.

An operation for the removal of the hydrocele was performed by Prof. Ross on June 12th, 1936.

An 8-in. oblique incision was made on the right side, passing downwards and inwards, above and parallel to the inguinal ligament. The muscles of the abdominal wall were split in the direction of their fibres and the rectus sheath was incised to reveal the sac, which lay superficial to the peritoneum. Its walls were thin and transparent, with numerous vessels running over the surface. Approximately 2 pints of fluid were withdrawn, and on examination this appeared pale yellow and clear, containing numerous cholesterol crystals. The sac was then dissected away from the adhesions, and was traced down into the scrotum.

The testis was located and drawn up into the abdominal cavity



in appearance, movements were good on both sides, and it was found that when the patient sat up in bed and put his recti abdominis muscles into action, most of the swelling disappeared. These facts showed that the swelling in the abdominal wall lay deep to the muscles.

In the lower part of the groin the swelling continued down into the scrotum in front of the testis, with a narrow constriction $1\frac{1}{2}$ in. in diameter in the region of the inguinal canal. It was quite soft in consistency and to a certain extent could be compressed up to the abdomen, through the external abdominal ring. It was found that the testicle moved with the swelling and that the latter could not be compressed, retaining the former in its original position. There was an impulse on coughing, and when the patient strained, the scrotal part of the swelling became more prominent. The swelling was translucent, dull to percussion, and on tapping the front of the abdomen a marked fluid thrill could be detected, travelling down into the scrotum. The right testicle was rather elongated, and appeared harder than the one on the opposite side, which felt normal. There was no cragginess of the testis, and testicular sensation was normal.

The rest of the abdomen was normal to palpation, and there was no sign of free fluid in the peritoneal cavity. Rectal examination showed that the swelling did not extend into the pelvis, and that the prostate and seminal vesicles were normal.

through the inguinal canal. The main mass of the sac was ligatured and removed, above the level of the testicle.

The testis was quite normal in size, appearance and consistency, and the vas was found below it, as it had been drawn upside down from the scrotum. This also appeared normal, and it was decided to leave the testis behind. As much as possible of the neck of the sac was removed and the testis returned to the scrotum.

A drainage-tube was inserted down into the neck of the scrotum and the muscles of the abdominal wall were sutured. The skin was closed with a continuous elastic stitch.

After the operation the patient made an uninterrupted recovery, and was discharged on June 30th, 1936.

Cases of interstitial hydrocele are exceedingly rare, but those that occur are nearly always right-sided. There is often an associated abnormality in the migration of the testis to account for the malformation of the tunica vaginalis.

Holmes reported the case of a man, $\text{æt. } 22$, who had on the left side a bilocular hydrocele, in which the abdominal loculus reached up to the umbilicus. The

peritoneum was slightly adherent to the upper end, and the scrotal part was attached to the scrotal tissues, cord and testis, which were included in the removal of the whole.

More commonly the hydrocele sac pushes up retro-peritoneally between the peritoneum and the psoas muscle. The peritoneum then becomes pressed forwards against the anterior abdominal wall, and the patient very often complains of a swelling in the abdomen.

Lasbrey has recorded a retro-peritoneal tumour, found to be connected with a hydrocele on the left side, although there was also a hydrocele on the right side as well; and Coleman reported a right-sided retro-peritoneal bilocular hydrocele from which 27 pints of fluid, rich in cholesterol, were removed.

Bickle described the case of a man complaining of a swelling in the abdomen on the right side, who had a double-sided hydrocele. In this case incision of the right hydrocele sac was followed by a rush of fluid and a decrease in size of the abdominal tumour. Nothing more was done except that a drainage-tube was inserted, and the patient made a good recovery.

In three of these cases a history of injury to the scrotum was given, but in the present case no such history could be elucidated, neither could any other cause be found either in the history or the examination of the patient to account for his condition.

I wish to thank Prof. Ross for his permission to publish this case.

D. E. MACRAE.

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CLERIHEWS.

Professor James Paterson Ross
becomes extraordinarily cross
if one prescribes for matters gastronomic
a tonic.

Professor Witts
consistently submits
a good prognosis
for alkalosis.

Mr. Reginald Elmslie
tells me
he has written many tomes
on bones.

STUDENTS' UNION.

UNIVERSITY OF LONDON O.T.C.: MEDICAL UNIT,
No. 1 COY.

The year's training was brought successfully to a close by a fortnight's training under canvas in France Bottom, near Eastbourne, from July 18th to August 1st. As usual the Medical and Infantry units camped together, although their training is entirely separate; but this year a few demonstrations were given to the Infantry Unit by senior members of the Medicals.

Other new departures from previous training were the introduction of gas-drill and the formation of a demonstration squad which, amongst other things, constructed a gas-proof dug-out in the side of a hill. This was fitted up as an Advanced Dressing Station in the scheme carried out on July 29th, and much impressed Col. J. W. L. Scott, D.S.O., Deputy-Director-General, Army Medical Services, the War Office, who inspected the Medical Unit on that day. In addition, two cellars of houses on the outskirts of Eastbourne were turned into Regimental Aid Posts, and a tented Main Dressing Station was pitched on the Downs behind Beachy Head. Casualties were evacuated under conditions obtaining on active service, special attention being paid to the consequences of the spraying of gas by enemy aircraft.

The training programme also included a course of lectures, amongst which those on the Medical Services of the Royal Navy, of the Royal Air Force, of India and in the Colonies were delivered by senior officers of their respective services.

On July 31st the Medical Unit marched to the Eastbourne Municipal Airport at Wilmington, where Col. E. M. Cowell, D.S.O., M.D., F.R.C.S., gave a lecture and demonstration on the first air ambulance in this country, which he invented himself. He also demonstrated a canvas covering designed for the ordinary service stretcher, so that it could be carried at any angle without inconvenience to the patient. In fact, he claimed that a patient could be carried in it strapped to the fuselage of an ordinary aeroplane.

No. 1 Coy. (St. Bart.'s) had thirty-five O/Cdts. in camp, and all those who entered for the Certificates A and B were successful in their practical examinations, held on July 30th.

Major-General A. C. Temperley, Military Correspondent to the *Daily Telegraph*, spent a day in camp with us, and, writing afterwards in that journal, said, "It is one of the best O.T.C.s. I have ever seen".

The social programme was fuller than in previous years, including two Sergeants' Mess Balls and the entertaining of a party of Canadian schoolboys in camp, followed by a three-cornered swimming contest with the Eastbourne Swimming Club at the Devonshire Park Baths. Also the Sergeants' Mess was At Home to visitors on Sunday, July 26th, when various demonstrations were carried out in the presence of the Mayor of Eastbourne.

Parades are held (in mufti) on Monday afternoons at 5 p.m. during each session in the Pharmacology Lecture Theatre, Charterhouse Square. All those interested are cordially invited to attend, when details of enrolment and training will be explained.

CRICKET CLUB.

Final Cup-tie.

St. Bartholomew's beat St. Thomas's in the final of the Hospitals Cricket Cup at Winchmore Hill on Sunday, Monday and Tuesday, September 6th, 7th and 8th, by 151 runs.

Winning the toss St. Bartholomew's batted first. There had been considerable rain during the preceding 24 hours, but the wicket had dried out well and there was never anything to suggest that St. Thomas's should have been made to bat. Brown and Wheeler began against Newsholme, medium left hand round the wicket from the far end, and Wynne, slow left arm from the pavilion. The wind came from the direction of the Winchmore Hill Girls' School. Wheeler very soon showed signs of being in something like his form of previous seasons, hitting Newsholme for three 4's in his second over. Wynne opened with two maidens and was rewarded by getting Brown, who played very late to a swinger. With the score 28 Wheeler was bowled, Wynne again being responsible for the wicket. Maidlow and Heyland treated the bowling with less respect and Wynne was hit for 6 and 4 in consecutive balls. Newsholme then tempted Maidlow with a good length ball with the result that cover-point held the catch. At 53 Grant joined Heyland, and careful

cricket was the order. Both batted very soundly before Grant was taken at the wicket for an excellent 43. This pair had added 113. Except for Heyland the rest of the side failed dismally, and the last 6 wickets could only muster 33 runs. The total score showed 193. Heyland's 78 was most valuable, and was one of the best innings played by him this season.

Wynne bowled very steadily, taking 5 wickets for 53. Behind the wicket Fenwick was extremely safe, letting only 3 byes, besides dismissing two batsmen.

St. Thomas's began their innings at 5 p.m., and could never be said to have enjoyed the light they played in, with Mundy swinging away three or four inches from one end, and Grant keeping a splendid length from the other. Smith twice touched at Mundy's out-swinger, but was given a further chance by 1st slip. Porter, too, had luck, being dropped behind the wicket before James held him in the slips off Mundy with the score at 15. Smith now played delightful cricket, scoring freely and not appearing unduly troubled by either bowler. There was always with him that extra second in which he could move his feet to play the appropriate shot. Nevertheless it seemed that Bart.'s might secure his wicket from a catch on the square boundary from the way he was hooking many balls from Grant. It might well have been a wise plan to move another man on to this boundary as one man was covering the area from long-leg to mid-on. Bartley was surprised to see his off-bail removed by Mundy with the score at 29. Fenwick was content to watch Smith do the scoring, and the pair increased the score to 66 before Fenwick was bowled by Grant, the ball just carrying away the bails.

Newsholme at once appealed against the light but the objection was not sustained, and he was soon out to another fine ball from Mundy. The score was then 73 for 4, and with the fall of the next wicket the light was considered too poor for further play.

Mundy and Grant reopened the attack and Bonham-Carter was soon back in the pavilion. Smith continued to play delightful strokes, but Mundy bowled him with what appeared a very ordinary ball. The final score was 147, giving St. Bart.'s a lead of 46. The game certainly could still be won or lost by either side. Mundy bowled better than ever before, taking 8 wickets for 70. Hunt only allowed 1 bye and the Bart.'s fielding on Sunday was good, but the score should not have reached 147, some rather sleepy ground-fielding on Monday morning contributing partly to it.

Brown and Wheeler again opened the Bart.'s innings. Neither took any risks, and it looked as if there would be a profitable opening partnership. But at 29 Newsholme bowled Brown, and with the next ball Hill joined the ranks of many celebrated men. Heyland played steadily, but it was Wheeler who overshadowed him and set the team a fine example, showing that there was absolutely no hurry, and that to win this match St. Thomas's should be set 400 to get. Batting quite faultlessly he was content to score runs only when they were meant to be scored. He lost Heyland at 91 for a patient 29, and then ran smoothly on to his 50.

Maidlow followed Wheeler's advice and scored 32 until he was taken by deep mid-on running back. Meanwhile Wheeler had been caught smartly at the wicket for 90, which laid the foundations of a large score.

Grant and Mundy in the best partnership of the match then added 122 for the 6th wicket, and put the score up to 319. This demoralized the bowlers, and must have been a pointer to the final result. Mundy played his best innings of the season, scoring 96 before being stumped, and Grant made 55 without blemish. James showed that he could have made more than his 12 if others had survived, and the final score read 344, giving an almost winning lead of 390.

Smith and Porter began easily enough to Mundy and Grant and 40 runs were on the board in a short time. Smith, then trying one of his hook shots, was amazingly well taken low down by North running in from the square leg boundary. This must have been a great blow to St. Thomas's, and certainly another important landmark to the result.

Porter batted very soundly, and Fenwick stayed with him, after Bartley had again been dismissed cheaply, James getting him l.b.w. with his first ball, this being the first Bart.'s bowling change of the match.

Porter and Fenwick played risk-free cricket until Porter astonishingly played a harmless ball from Rutherford into James's hands at silly mid-on. Newsholme seemed to see the ball clearly this time, but Grant bowled him with a beauty, and a moment later had Fenwick caught by Hunt for 42. Score 146 for 5. After this St. Thomas's showed signs that they were not keen on prolonging the agony to a fourth day, and presented Bart.'s with a run-out and easy catch to mid-off, Grant hitting the stumps and Maidlow

the catch. Mundy dismissed his opposing captain Bonham-Carter with a grand one-handed effort to his own bowling, and St. Thomas's were all out for 239, Ballantyne being undefeated for a bright 32.

Bart.'s thus won the cup for the third time in the last seven years.

ST. BARTHOLOMEW'S HOSPITAL.

1st Innings.

		2nd Innings.
D. J. A. Brown, b Wynne	2	b Newsholme 14
F. E. Wheeler, b Wynne	23	c Fenwick, b P. Smith, 90
R. Heyland, c Newsholme, b Stott	78	c Fenwick, b Stott 29
W. M. Maidlow, c Ballantyne, b Newsholme	15	c Wynne, b Stott 32
R. N. Grant, c Fenwick, b P. Smith	43	lbw, b Wynne 55
J. North, b Newsholme	6	ht. wkt, b News- holme 6
C. T. A. James, lbw, b Newsholme	6	not out 12
A. H. Hunt, c Porter, b Wynne	14	b Newsholme 0
R. Mundy, not out	1	st Fenwick, b Wynne 96
P. G. Hill, c Fenwick, b Wynne	0	b Newsholme 0
S. T. Rutherford, c Bartley, b Wynne	0	b Newsholme 1
Extras	5	Extras 9
Total	193	Total 344

Bowling.

1st Innings. 2nd Innings.

	O.	M.	R.	W.	O.	M.	R.	W.
A. D. Newsholme	26	8	57	3	41	4	9	102
H. R. Wynne	16.3	3	53	5	42	11	103	2
P. Smith	13	0	41	1	11	1	36	1
D. O. Walker	2	0	15	0	..	..	..	..
N. K. Stott	6	2	22	1	17	1	65	2
E. R. Smith	..	..	..	..	3	0	14	0
H. L. Porter	..	..	..	..	2	0	7	0
C. H. D. Bartley	..	..	..	..	3	0	8	0

ST. THOMAS'S HOSPITAL.

1st Innings.

	2nd Innings.
E. R. Smith, b Mundy	98
H. L. Porter, c James, b Mundy	7
C. H. D. Bartley, b Mundy	5
T. Fenwick, b Grant	10
A. D. Newsholme, b Mundy	4
P. Smith, b Mundy	10
R. E. Bonham-Carter, b Mundy	5
J. L. Ballantyne, st Hunt, b Mundy	0
H. R. Wynne, b Mundy	4
D. O. Walker, not out	1
N. K. Stott b Grant	2
Extras	1
Total	147
	Total 239

Bowling.

1st Innings. 2nd Innings.

	O.	M.	R.	W.	O.	M.	R.	W.
R. Mundy	23.3	3	70	8	25.3	4	70	4
R. N. Grant	23	3	76	2	23	5	66	3
C. T. A. James	..	..	..	..	12	4	34	1
S. T. Rutherford	..	..	..	..	11	1	47	1

1st XI Results.

Matches played 22, won 8, lost 8, drawn 6.

Inter Hospitals Cup :

2nd round beat Middlesex Hospital by 181 runs.
Semi-final beat St. Mary's Hospital by 109 runs.
Final beat St. Thomas's Hospital by 151 runs.

Batting Averages, 1st XI.

Name.	Innings.	Times not out.	Highest score.	Runs.	Average.
R. N. Grant	9	3	77	287	47.83
R. Heyland	20	3	88	289	46.41
J. S. Johnstone	7	0	83	215	30.71
R. Mundy	16	4	96	367	30.58
W. M. Maidlow	13	0	75	357	27.46
F. E. Wheeler	19	3	90	407	25.43
A. H. Hunt	9	2	63*	168	24.00
M. H. Harmer	8	1	44	161	23.00
J. North	18	0	78	379	21.05
D. J. A. Brown	20	1	60	343	18.05
C. T. A. James	12	3	17	96	10.66
J. J. Slowe	7	3	22*	33	8.25
S. T. Rutherford	14	5	23*	55	6.11
Also batted (under 5 innings):					
J. A. V. Nicoll	1	0	27	27	27.00
S. Grossmark	1	0	27	27	27.00
R. Wells Cole	1	0	26	26	26.00
C. G. Nicholson	3	1	32*	47	23.50
W. M. Capper	3	0	47	70	23.33
J. V. T. Harold	4	1	42	63	21.00
J. D. Wilson	1	0	20	20	20.00
J. A. Burnett	1	0	11	11	11.00
J. G. Evans	2	0	21	22	11.00
F. H. Masina	1	0	5	5	5.00
C. M. Dransfield	4	0	8	18	4.50
P. G. Hill	4	0	8	14	3.50
J. D. Anderson	2	0	6	6	3.00
J. W. Perrott	1	0	3	3	3.00
W. J. O. Page	2	0	4	4	2.00
S. T. Hayes	2	0	0	0	..
N. A. Young	1	0	10	10	10.00
G. Ffrench	1	0	0	0	..
A. L. Little	1	1	37*	37	..
A. H. Evans	1	1	4*	4	..
P. M. Elder	1	0	4	4	4.00
J. Craig-Cochrane	1	1	5*	5	..
D. R. S. Howell	1	0	21	21	21.00

* Not out.

Bowling Averages, 1st XI.

Name.	Overs.	Maidens.	Runs.	Wickets.	Average.
R. Mundy	286.4	47	959	58	16.53
R. N. Grant	114.1	15	388	23	16.86
S. T. Rutherford	140.4	25	483	25	19.32
C. T. A. James	114	10	442	21	21.04
R. Heyland	27	2	111	5	22.22
M. H. Harmer	69.2	3	371	16	23.10
J. D. Anderson	59	9	217	7	31.00
F. E. Wheeler	35	1	159	5	31.80
C. G. Nicholson	62	11	255	6	42.50
Also bowled (under 5 wickets).					
P. G. Hill	7	1	20	1	20.00
C. M. Dransfield	18	0	64	2	32.00
J. North	11	1	51	1	51.00
R. Wells Cole	9	1	43	1	43.00
W. M. Maidlow	0.2	0	0	0	..
D. J. A. Brown	3	0	20	0	..
W. M. Capper	1.2	0	4	1	4.00
J. Craig-Cochrane	1	0	0	0	..
A. H. Hunt	1	0	1	0	..
E. O. Evans	8	1	25	0	..
J. V. T. Harold	5	0	36	1	36.00
D. R. S. Howell	1.1	0	5	1	5.00
J. G. Evans	7	1	72	3	24.00
J. W. Perrott	4	0	23	0	..

Order of catches.—J. J. Stowe (10), R. Heyland (9), A. H. Hunt (8), R. Mundy (7), J. North (7), C. T. A. James (6), S. T. Rutherford (5), J. D. Anderson (4), W. M. Maidlow (3), R. N. Grant (3), F. E. Wheeler (2), J. S. Johnstone (2), C. G. Nicholson (2), C. M. Dransfield (2), M. H. Harmer (2), P. G. Hill (1), W. M. Capper (1), D. J. A. Brown (1), P. A. K. Brownlee (1), J. W. Perrott (1).

2nd XI Results.

Matches played 12, won 3, lost 5, drawn 4.

2nd XI.

In the second round of the Inter-Hospitals Junior Cup Competition Middlesex Hospital were defeated by 9 wickets, largely due to some excellent bowling by Nicholson (3 for 14) and R. N. Grant (4 for 6)—the latter taking his wickets in five balls, including the hat-trick. The scores were Middlesex 52, Bart.'s 53 for 1.

In the Semi-final, however, St. Mary's defeated us somewhat easily—the side batting lamentably badly with the notable exception of N. A. F. Young. Scores : Bart.'s 138 (Young 54); St. Mary's 139 for 3.

3rd XI Results.

Matches played 15, won 6, lost 6, drawn 3.

CRICKET TOUR IN SOMERSET, DORSET AND DEVON.

ST. BARTHOLOMEW'S HOSPITAL v. BRIDPORT.

Played on August 6th. Before lunch we were interrupted by rain, but after lunch the sun shone and we had no more rain for the rest of the tour.

Scores.—Bridport 168 (Col. Pinney 75), (Mundy 3 for 27, Wheeler 3 for 35). St. Bartholomew's Hospital, 177 for 6 (Grant 56 not out, Mundy 31, Maidlow 30). Won by 4 wickets.

ST. BARTHOLOMEW'S HOSPITAL v. CAMBRIDGE SOU'WESTERS.

Played at Honiton on August 7th and 8th.

St. Bartholomew's Hospital 227 (Brown 53, Mundy 46, North 37).

Cambridge Sou'Westers 54 (Mundy 7 for 25), and 147 (Grant 4 for 10). Won by an innings and 26 runs.

ST. BARTHOLOMEW'S HOSPITAL v. SOMERSET STRAGGLERS.

Played at Taunton on August 10th and 11th.

St. Bartholomew's Hospital 257 (Grant 77 not out, Maidlow 51, Wheeler 48, Brown 38), and 171 for 6 dec. (North 78).

Somerset Stragglers 166 (Grant 6 for 60), and 263 for 2 (MacRae 113 not out, P. G. Hill 70, Baldock 67 not out). Lost by 8 wickets.

ST. BARTHOLOMEW'S HOSPITAL v. MR. MAIDLLOW'S XI.

Played at Ilminster on August 12th.

St. Bartholomew's Hospital 160 (Heyland 48, Mundy 46 not out, North 33).

Mr. Maidlow's XI 135 (Bangham 50) (Mundy 3 for 45, Grant 3 for 56). Won by 25 runs.

AVERAGES FOR TOUR.

Batting.

Name.	Innings.	Times not out.	Highest score.	Runs.	Average.
R. N. Grant	5	3	77*	163	81.5
R. Mundy	5	1	46*	135	33.75
J. North	5	0	78	158	31.6
D. J. A. Brown	4	0	53	113	28.25
W. M. Maidlow	4	0	51	110	27.5
R. Heyland	5	1	48	96	24.0
F. E. Wheeler	5	0	48	79	15.8
S. T. Rutherford	4	2	12*	22	11.0
C. M. Dransfield	4	0	8	18	4.5

* Not out.

Also batted : W. M. Capper, 5, 18; A. H. Hunt, 10; P. G. Hill 6, 8; J. J. Slowe, 1.

Bowling.

Name.	Overs.	Maidens.	Runs.	Wickets.	Average.
R. Mundy	69	12	235	17	13.8
R. N. Grant	65	7	243	17	14.2
R. Heyland	17	2	71	3	23.6
S. T. Rutherford	31.2	5	95	4	23.7
F. E. Wheeler	24	1	113	4	28.2
C. M. Dransfield	18	0	64	2	32.0

Also bowled : W. M. Maidlow, 1 for 0; W. M. Capper, 1 for 4; P. G. Hill, 1 for 20; J. North, 0 for 9; D. J. A. Brown, 0 for 20; A. H. Hunt, 0 for 1.

Catches.—J. North (4); J. J. Slowe, S. T. Rutherford (3); R. Heyland, R. N. Grant, C. M. Dransfield (2); W. M. Maidlow, R. Mundy, D. J. A. Brown, P. G. Hill, W. M. Capper (1).

Stumping.—A. H. Hunt (1).

CORRESPONDENCE.

To the Editor, 'St. Bartholomew's Hospital Journal'.

SIR,—Can you spare a little space for one who, though not a senior in the profession, has perhaps had more than average experience of the controlled and the uncontrolled practice of medicine dividing the day's work between them, to comment on Mr. Somerville Hastings' "Doctor of the Future"? Though Dr. Geoffrey Evans has dealt faithfully with some aspects of the matter, there are some which seem to me to have escaped the attention they deserve.

It is only fair to present my credentials. First, 6 months of controlled, orderly or disciplined practice as a hospital resident, then 4½ years of the same in the B.E.F., 6 more months as hospital resident. Thereafter a mixture of this orderly kind of practice (at hospitals, at welfare centres, at elementary schools and school clinics and on the medical boards of the Ministry of Pensions) with the uncontrolled, free or chaotic kind known as general practice, this being tempered by a small proportion of "panel practice". Of course all these activities have not gone on all the time, but there has always been some private practice, some voluntary hospital work and some work under a public authority. The private work has filled more and more of the days as the years have passed and the years now number fifteen.

I think I have a very fair ration of good citizenship in my composition and about the usual allowance of love of medicine, laziness and ambition to be found in one who was fortunate in his school, university and medical school and in the quality of the congenital brass-plate-in-the-mouth so commonly found in investigating the past history of medical men.

Very well, then. If Mr. Hastings' thesis is well founded I think I ought by now to feel that although, to support a wife and family, I have had to spend much time in isolated tinkering for fees, fortunately I have been able to put in a certain amount of really helpful work for the community as one of a properly organized body of workers.

Now I am unreservedly glad to have done and to be doing both kinds of work, and I will admit at once that in both kinds there are good days and bad days, times of fruitfulness and times of waste, but unless I utterly deceive myself I have actually accomplished far more for the good of my fellow citizens as a private practitioner than as medical officer of any public body or of the State itself. Also it is almost exclusively in private practice that I have had the pleasure of working as one of a team. It is true that the teams have been, for the most part, impermanent, *ad hoc* teams of two or three, but they have been real teams while they lasted. No doubt some of the "public body" work has borne fruit, but a quite undue proportion of it has gone to making records of very doubtful value, and in sowing seed on stony ground whose utter unfruitfulness I have been able to see later with my own eyes.

Mr. Somerville Hastings' thesis runs somewhat thus :

We must all be impressed by the triumphs of preventive medicine and anxious to share in its progress. We should think shame to be "tradesmen in health matters, merely selling our skill in the treatment of declared disease to those who can afford to pay for it"—hard words these.

In hospitals all is well—no competition, no jealousies, plenty of specialists, all the latest apparatus and knowledge, co-ordination, "genuine team work". No wonder they are so much trusted by the public.

Outside it is far otherwise: your neighbour is your rival and "true team-work" is scarcely possible. The general practitioner is allowed his niche in the future scheme of things but it is a rather small and humble one. At present it is hardly possible for him to treat any panel patients without "ulterior considerations", and "it is bad for both doctor and patient for the one to be economically dependent on the other". Many of the poor cannot afford any fee and yet (curiously enough) may not like the doctor the State provides (surely he should no longer be called the Poor Law doctor), so their diseases progress untreated.

In happier times there will be panel doctors for all (for this is what it comes to), with the limited free choice such a system allows. They will have leisure and opportunity for research and will at last observe the earliest beginnings of disease, especially at routine inspections; they will preach health to the people and chaos will have been replaced by order.

May I begin with preventive medicine?

Let us agree at once that a good doctor should love health and hate disease, that he should know what healthy living means and teach it by precept and example. Of course he should. But he does. The teaching of personal hygiene is an unavoidable part of the daily work of the "tradesman in health". It is almost impossible to picture oneself bidding farewell to a patient who has recovered from an ailment without at least some words on the maintenance of future health; moreover "infant welfare work" and even, occasionally, "adult welfare work" occurs quite frequently in the course of ordinary practice. I do not doubt that more systematic periodic medical inspection at least of the young would be a good thing, but in one way or another a tremendous deal of it does get done, and an appreciable share is done by private practitioners.

But what of preventive medicine on the large scale? Is it either possible or desirable that we should all have a finger in that enormous pie?

Are not the triumphs of preventive medicine due in the main to the application by those in authority of some piece of laboratory research, or to successful attempts to improve the "standard of living", as judged by ordinary common sense? Surely there is no need for us all to be researching and propagandizing. I think, quite seriously, we should only spoil the broth.

Nor should we allow ourselves to be blamed because the health of the community is not better than it is.

The army (in which some of us learned with a shock how little we had been taught of hygiene) makes, in its wisdom, its combatant officers responsible for the preservation of their men's health, providing them with medical consultants for use when they need them. Is it not for the statesmen, captains of industry, schoolmasters, parents, leaders of all kinds and individual citizens to apply the knowledge of hygiene, which they either have already or can very easily obtain from recognized sources instead of blaming the long-suffering doctors?

There is already a vast store of ammunition ready to hand for use in "the fight against disease" and more is constantly issuing from the works, but much of it remains dumped at the base. Let me take one small instance.

No one, I imagine, would deny that the two commonest defects among the youth of the population at the present time are dental caries and poor physique, and that both are very prevalent. Both are largely preventable by well-known and inexpensive means. Yet they continue. Is medicine, or the organization of the profession, or are individual doctors to be blamed for this? Not so. The responsibility lies on other shoulders. When the statesman and the ordinary citizen begin to be ashamed of these conditions because they really desire and love health the conditions will disappear. At present they suffer them gladly. Inspiration must come from those in command.

Next comes the alleged contrast between hospital and private practice.

Here I must tread delicately in a hospital journal. Moreover, I have not yet forgotten that glorious feeling that all was light within the hospital walls and black darkness without. I must have heard in the course of ordinary practice, as much criticism of hospitals by hospital patients as anyone in a hospital hears of the benighted doctors outside. Nor can it all be lightly dismissed.

That team-work, which Mr. Hastings finds so typical, is sometimes conspicuously absent, so that a patient is either treated in bits, or some bits are treated and others overlooked. To his own doctor the patient generally looks larger than his disease; in hospital the disease may quite obscure the patient. Much good work is marred by that unfortunate combination of official reticence with unofficial garrulity. ("Of course they never tell you nothing there but I heard one of the doctors/nurses say —"). Why do hospitals never (almost) take their patients into their confidence? Why do they not understand that they are thirsting for a diagnosis?

If, as the present Minister of Health suggests, we are rapidly becoming a nation of medicine drinkers, the hospitals must take their full share of the blame. And surely there can be no place in the world where "merely patching up people when they are ill" can be seen and experienced on such a scale and in such devastating nakedness as in a medical out-patient department of any hospital you like.

I must not go on. Two greys do not make a white, and hospitals and practitioners could tell sad and unprofitable tales against each other through a long winter's night. But the suggestion that hospitals, even great ones, have a monopoly of medical virtues and are, indeed, almost perfect cannot pass unchallenged, nor can the implication that patients have, in general, a greater trust in hospitals than in

their own doctors. I wonder if Mr. Hastings realizes how much diplomatic persuasion may be necessary to induce a patient to pay a (quite necessary) visit to a hospital, or how often the G.P. hears the flattering but pathetic question, "Will you be able to look after me there, doctor?"

Which brings me to practice—the selling of our skill in the treatment of declared disease.

I am sorry, but I find it (though laborious and sometimes rather exhausting) exceedingly interesting and, I fancy, quite as useful as anyone else's work. The daily round, the common task furnishes to the family doctor not only what the hymn recounts, but also something to puzzle his brains over, something to tax his experience and ingenuity to the utmost, plenty of opportunities for the most genuine kind of team-work (with the great advantage that he himself generally has the selecting of the team), a very fair ration of thanks, as much of that something-accomplished-something-done feeling as an ordinary man has a right to expect, and, finally, a livelihood.

And that brings us to fees. Are they really so vicious? Let us grant at once that they are, in many of their aspects, a nuisance, that there can be no rational basis for determining their amount, that occasionally (but with reasonable goodwill but seldom) they may embarrass efficient treatment; let us not blink the fact that big fees may tempt to unnecessary interference and, in any case, bring no credit to the profession; let us admit that fees look best when they have lost their identity at the bank and worst when they have become bad debts; let us agree that ideally we should be maintained in honour by our fellow citizens while we went about doing good; but, all this admitted, what is the alternative?

It is possible to imagine a closely organized and disciplined State medical service with rank, pay, leave, defined duties, orders from above and all the rest of it, and to one who has to make up his own and his patient's mind daily and hourly the conception has its attractions. But its necessary corollary is a closely organized and disciplined body of citizen-patients, and as this is unthinkable in this country its merits and demerits need scarcely be discussed. Besides, Mr. Hastings does not mention it. He seems to be admiring merely a large extension of the panel system, and the essence of the matter is that every citizen will be entitled to free medical attention from a doctor who has undertaken to look after him and that no doctor will be paid by any patient. He will presumably be paid *per capita*—he almost must. Now we know that this works after a fashion, that it is better for the doctor than various worse ways of rewarding him, that it helps the poor man when he is ill, and in some circumstances establishes very satisfactory relation between doctor and patient. It might be all right if "medical attention" were definable, if our duties consisted in treating the diseases we find in the books according to the directions. But when every kind of anxiety, fear and unhappiness and many almost abstract conundrums may be brought to our door on the grounds that at some point they touch the bodily health, when the whole field of human trouble is taken to be our province, then I do not think any ordinary capitation fee should be considered a fair reward. We may reduce or waive our fees on such occasions and accept thanks instead, but it should be understood that we have earned the fees and would ordinarily receive them.

L. W. BATTEN.

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REVIEWS.

RECENT ADVANCES IN GENITO-URINARY SURGERY. By HAMILTON BAILEY, F.R.C.S., and NORMAN M. MATHESON, F.R.C.S. (J. and A. Churchill, Ltd.) Pp. 213. Price 15s.

This book gives a compressed review of the present position of genito-urinary surgery. It is written in a concise, almost racy style, with many illustrations that elucidate and amplify the text.

The principal criticism is that one has come to expect from the "Recent Advances" Series more scholarly works, even if this end be attained at the expense of minor practical detail. Such matters as the method of tying in a catheter or bandaging a circumcision might have been sacrificed to make room for fuller consideration of the pathology underlying diseases. This need is felt in various places, and perhaps most of all in the section on hydronephrosis, which receives short reference for so important a subject. Chronic urinary infection, that *opprobrium urologicum*, might profitably

have been treated as an entity, and there is no mention of the considerable body of evidence, though much of it is from animal experiment, to show that incisions into the kidney substance are followed in a large proportion of cases by partial or complete atrophy of the organ.

The book is full of excellent summaries of diseases and of methods of treatment which could only be otherwise obtained by reading a number of original papers. Harris's operations on the bladder and prostate, Coffey's ureteric transplants, carcinoma of the prostate and bladder and the surgery of the suprarenals are the subjects of a few such summaries. It is a pity that the treatment of gonorrhœa by pyrotherapy is not included, and that a little more detail is not given for the intrathecal injection of alcohol for relief of intractable pain—a measure that is rapidly becoming established, and is simple by comparison with the various operative procedures offered as an alternative.

Many will disagree with the statement that a testicle which is not in the scrotum by the age of three is unlikely to descend later, nor will all agree that simultaneous blocking of both ureters by calculi is really a common cause of calculous anuria. The formulae used in the urea clearance test would be better appreciated had the reason for their exact composition been given.

Probably this volume will be widely read. Authorities are quoted and references are given freely. There is little modern work that has not received mention. The print and production are excellent.

POST-GRADUATE SURGERY. Edited by RODNEY MAINGOT, F.R.C.S. Vol. II. (Medical Publications, Ltd., 1936.) Pp. ix + 1747-3572. Coloured plate. Figs. 847-1980. Price for the three vols. £9 9s., or 70s. per vol.

The second volume of this monumental work appeared in May, soon after the first had evoked very favourable notice in these and many other columns, and we have little doubt that it will be accorded a similar reception.

The first section, on the surgery of the head, spinal column and salivary glands has been written by Mr. C. P. G. Wakeley, with an admirable first chapter on head injuries—so increasingly common in modern civilian practice. He points out the paramount importance of assessing the degree of injury to the brain, laying stress on the clinical and therapeutic side in view of "our unsatisfactory knowledge of the pathology of cerebral damage". The sections on tumours and operative technique follow, and finally there is a chapter on trigeminal neuralgia, excellently illustrated.

The next section, on the neck, by Sir William Wheeler, deals with the surgery of the thyroid and parathyroid (including reference to Crile's technique), subclavian artery and phrenic nerve, but the operation of cervico-thoracic ganglionectomy is included in the section on the sympathetic nervous system, ably written by Mr. Lawrence Abel, and giving a detailed account of the anatomy and general physiology before proceeding to indications and technique of operations.

The surgery of the thorax is dealt with by Mr. Holmes Sellors, with an introductory and very useful preliminary account of post-operative chest complications by Dr. R. S. Johnson. The section is well illustrated by X-rays, but the space given to the surgery of the lung is relatively short, and there is little account of the comparative merits of individual operations and their results.

There follow sections on gynaecological surgery by Mr. Lyle Cameron, Mr. S. Forsdine and Dr. Green-Armstrong, and these occupy one-quarter of the whole volume—which might perhaps have been made appreciably shorter. The editor himself has supplied an excellent account of injection therapy, and infections of the hand are described by Mr. Hamilton Bailey. Other subjects include orthopaedics by Mr. Buxton, the adrenals by Mr. Broster, and their surgical pathology by Dr. Vines, and the section on the urinary system has been fully dealt with by Mr. Ainsworth-Davis. Throughout, in fact, a high standard is maintained, and great credit is due to the publishers for the excellence of the figures and text.

THE OPERATIONS OF SURGERY. By R. P. ROWLANDS, M.S., F.R.C.S., and PHILIP TURNER, B.Sc., M.S., F.R.C.S. (J. and A. Churchill, Ltd., 1935.) Vol. I. 8th edition. Price 36s.

Much of the preparatory work for this edition was done by the late Mr. R. P. Rowlands, and the sections unfinished by him have been capably completed by Mr. W. H. Ogilvie and Mr. Grant Massie

—that is, operations on the lower extremity, the tendons and the vertebral column.

The book, of course, still remains a text-book for the teaching and practising surgeon and the candidate for higher examinations, and the sections on special subjects are accordingly limited only to those operations which the general surgeon may be called upon to perform. Thoracic surgery, in this manner, is treated only briefly, but it seems a pity that with its very rapid progress since the appearance of the last edition, more space could not have been given to it. The operations of lobectomy and pneumectomy, for example, are dismissed in one paragraph of small type and would seem to merit more attention.

The text, however, contains numerous references to more exhaustive studies of special subjects set out in various journals, and the details of post-operative treatment throughout are still discussed in admirable detail. The book, in fact, is sure to maintain in its new edition the widespread popularity it has always enjoyed. The figures are excellent, and the type and make-up all that could be desired.

BIRTH-CONTROL METHODS. By NORMAN HAIRE, Ch.M., M.B. Illustrated ; with a foreword by ALDOUS HUXLEY. (George Allen & Unwin, Ltd., 1936.) Pp. 192. Price 6s.

Dr. Norman Haire publishes this book reluctantly. He feels that, in spite of fifteen years' experience and personal acquaintance with more than 15,000 cases, he is scarcely ready to commit himself to definite opinions. Such meekness should surely inherit the earth, besides setting an example to those who rush into print on the slightest provocation. For many years he cried prophetically in the wilderness of prejudice (there is an interesting account of the growth of the birth-control "movement"), but his reward is at hand and one of the goals would at any rate appear to be in sight, namely, the revision of the law relating to abortion.

Dr. Haire has written this small book because he has found himself unable to recommend to numerous inquirers, both medical and lay, a "fairly brief and simple, but reliable, manual of birth-control". In our opinion this book supplies that demand. The various contraceptive methods are dealt with systematically and these conclusions emerge : That no method is 100% safe ; that the "safe period" cannot be relied upon, and that the condom is not as infallible as is usually supposed ; that a vaginal diaphragm plus a chemical contraceptive offers the best protection ; that (in his opinion) Gräfenberg's intra-uterine ring is a safe and reliable method ; and that cervical caps and intra-cervical pessaries are not to be recommended.

EXAMINATIONS, ETC.

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BROCKLEHURST.—On August 12th, 1936, to Sybille and Robert J. Brocklehurst, 11, Avon Grove, Sneyd Park, Bristol, 9—a daughter.

CARR.—On August 13th, 1936, at Birdwood, The Green, St. Leonards-on-Sea, to Lorna (née Christopherson), wife of Dr. C. M. Carr—a daughter.

DAVIES.—On August 10th, 1936, at St. Ealdhelm's Nursing Home, to Ethel Mary (Sheila), wife of Dr. W. H. D. Davies, Pagoda Avenue, Richmond—a son.

GREEN.—On September 4th, 1936, at 255, Wickham Chase, West Wickham, Kent, to Margaret, wife of H. F. Green, M.B.—a daughter.

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MORGAN.—On August 14th, 1936, at 24, Stow Park Avenue, Newport, Mon., to Nancy, wife of Glyn Morgan, M.C.—a son.

SCOTT.—On August 12th, 1936, at 20, Devonshire Place, to Betty, wife of Philip G. Scott, F.R.C.S., of 130, Harley Street—a daughter.

SPENCE.—On September 24th, 1936, at 20, Devonshire Place, W. 1, to Lena, wife of A. W. Spence, M.D.—a son.

UNDERWOOD.—On August 18th, 1936, at 20, Devonshire Place, W. 1, to Vera (née Beck), wife of William Underwood, F.R.C.S.—a son.

MARRIAGES.

BOWEN—PEEL.—On August 26th, 1936, at Tortworth, Glos., by the Rev. W. A. Peel, B.A., Rector, John W. Bowen, L.D.S.(Eng.), of Park Lane, Croydon, to Ruby (Pat) Peel, of Llanilar, Aberystwyth.

HUNT—STOCKWELL.—On September 5th, 1936, at Beaconsfield Parish Church, by the Rev. W. Hodgkinson, M.A., assisted by the Rev. R. J. E. Dix, M.A., Richard Swinton Hunt, M.A., B.Ch.(Camb.), M.R.C.S., L.R.C.P., only son of Lieut.-Col. S. Hunt, I.M.S. (retired), and Mrs. Hunt, of Beaconsfield, to Eveline Ethel, younger daughter of Mr. and Mrs. W. A. Stockwell, of Beaconsfield.

REES—AYLING.—On September 14th, 1936, at The Sacred Heart Church, West Hampstead, London, by the Rev. Father H. Bilsborrow, of Chipping Campden, Glos., Dr. Evan Robert Rees, "Mydrim", Preston Road, Harrow, youngest son of the late Mr. and Mrs. Thomas Rees, Mydrim, Carmarthen, to Joan Eleanor, elder twin daughter of the late Mr. John Aylng and of Mrs. Aylng, 20, Acol Court, West End Lane, London, N.W. 6.

SILVER WEDDING.

LAWSON DICK—DUKE.—On August 30th, 1911, at St. Andrew's Church, Muswell Hill, John Lawson Dick, M.D., F.R.C.S., of Stamford Hill and Highgate, to Winifred Duke. Present address : The Gables, Chichester Road, Dorking, Surrey.

DEATHS.

FERGUSON.—On September 14th, 1936, Archibald Ferguson, M.B., B.S., D.P.H., M.O.H. Stepney, of 12A, Albert Mansions, Northumberland Street, W. 1, son of Dr. J. M. Ferguson, of Burnley.

GRIGGS.—On August 28th, 1936, in a nursing home at Hove, William Alfred Griggs, L.R.C.P.(Lond.), M.R.C.S.(Eng.), of 10, Oriental Place, Brighton, aged 74.

KESTEVEN.—On September 20th, 1936, at Yorklets, Whitstable, William Henry Kesteven, M.R.C.S., L.S.A., elder son of the late Dr. Kesteven, of Holloway and Boxhill, Dorking.

MOYNIHAN.—On September 7th, 1936, suddenly, at Carr Manor, Meanwood, Leeds, Berkeley George Andrew, first Baron Moynihan of Leeds, son of Captain Andrew Moynihan, V.C.

STURTON.—On September 4th, 1936, at Norwich, the result of an accident, Clement Sturton, F.R.C.S., of Kettering, aged 36.

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